



PROJECT DOCUMENT REVIEW RECORD

Document Title/Description: **OU 3-14 Remedial Investigation/Feasibility Study Additional Soil Sites Summary Report (Draft)**

Date: **July 16, 2001**

Reviewer: **IDEQ**

Item Number	Section Number	Page Number	Comment	Resolution
GENERAL COMMENTS				
			<p>Given the information presented in the draft document which was derived from 1994 and 2000 information, and coupled with a current review by IDEQ RCRA staff, it appears that CPP-81 may not be appropriate for inclusion as a CERCLA OU 3-14 site, but rather under RCRA as part of the closed Calcliner Pilot Plant.</p> <p>It is noted that this was a Track 1 site determined in 1994 to be a "No Further Action" site by the agencies and that further uncertainties regarding residual trace compounds, such as mercury, would be documented based on historical information which is now summarized in the draft report.</p> <p>Therefore, the issue remaining, regardless of the final risk assessment, is whether or not this site should have its final action documented under the FFA/CO or HWMA program. As the RCRA program is currently evaluating the information presented in this document and other information regarding the Calcliner Pilot Plant, we cannot at this time concur in placing CPP-81 within OU 3-14 nor give our final endorsement that this site requires "No Further Action".</p>	<p>The Federal Facility Agreement and Consent Order (FFA/CO), signed by the State of Idaho, EPA, and DOE-ID on December 9, 1991, identified CPP-81 as a CERCLA site in Operable Unit 3-12. Under the FFA/CO, the site was investigated under the Track 1 process. The "Track 1 Decision Documentation Package, Waste Area Group Operable Unit 12; Site CPP-81, Abandoned CPP-637/CPP-601 VOG Line" collected reliable information that indicated that the contents of the pipe may pose a future risk of release to the environment. Due to this risk, the Department of Energy performed a time-critical removal action in accordance with Action Memorandum (CPP-81, Rev. 1, August 30, 1993.) The Final Record of Decision for the Idaho Nuclear Technology and Engineering Center, OU 3-13, signed by the State of Idaho, EPA, and DOE-ID, identified that the decision on CPP-81 site would be "...moved to OU 3-14 RI/FS because not enough data is available to make a risk-based decision."</p> <p>In review of the history of this unit, including the waste removal that occurred as part of the removal action, the INEEL supports the State's previous actions associated with using the CERCLA process to evaluate this site and the continuation of the CERCLA process for this activity.</p>

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SPECIFIC COMMENTS—CPP-61				
1	Figure 1-1	page 1-2	Figure 1-1 is very vague and lacking in specifics when compared to Figure 2-1, where CPP-82 is correctly divided into three sites, a legend and North arrow are provided, and the sites can be placed in the larger context of INTEC facilities. Consider removing Figure 1-1.	Figure 1-1 has been revised to provide a North arrow, scale/legend and title to identify that this is the 2001 configuration of the area. Figure 2-1 has been revised to show the configuration in 1994-5, prior to the remediation. The primary difference between the pre and post-remediation site plans is the removal of the original transformer pad and moving the fence and pad.
2	Figure 2-2 and Table 2-1	pages 2-3 and 2-4	The sample locations shown in Figure 2-2, and the sample coordinates provided in Table 2-1, plotted on a grid with the NW corner of building CPP-613 as the origin, bear no resemblance to each other. One or the other is apparently in error, and this in turn casts doubt as to where exactly the samples were collected. Please discuss.	The coordinates in the table are correct. However, the drawing was developed to support field operations and is not to scale. The title of the drawing will identify that it is not to scale.
3	Section 2.4, first paragraph after bullets	page 2-6	This section discusses the removal of soil and concrete (total of nine contaminated hot-spots) due to rad concerns. Based on this discussion, there appears to have been no PCB evaluation of these soils and concrete prior to disposal.	Reference 1 of the Track 1 Decision Documentation Package provides the guidelines used for the transformer pad clean-up and subsequent management of the waste and equipment. The guidelines for the cleanup and management of the contaminated soils associated with the spill site, including the sampling, and analysis is provided in Appendix A of this document. Based on the Track 1 information, it is unclear at what point the sampling occurred. It is also unclear whether PCB contamination was associated with the radiological contamination that was removed.

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4	Section 2.6, third paragraph (last of section)	page 2-10	<p>The pictures of the concrete forms in Appendix B do show a hole with a concrete form, as stated, but do not “clearly” demonstrate that the soil in and around the original transformer pad was removed, nor placed in segregated piles. Neither can be inferred from the referenced photos in Appendix B.</p> <p>The remainder of the paragraph appears to describe a situation where there was confusion or indecision concerning confirmation sampling of the bottom of the excavation prior to infilling. The outcome as described is not really clear. Please explain.</p>	<p>This section has been reworded to remove the subjective terminology “clearly.”</p> <p>The remainder of the paragraph provides the documentation in relation to the field decisions to generate additional waste prior to receipt of sample results. As identified in the initial sampling results in Table 2-2, the detected PCB contamination at 18 inches and below had met the remediation goals and at this point, the excavation was at least 60 inches below grade. This discussion identifies that the field personnel initially disallowed removal of additional dirt (generation of additional waste) pending receipt of sample results. However, they rethought this decision and allowed the removal of the loose material from the excavation.</p>
5	Section 2.7, third bullet	page 2-11	<p>It may be presumptive at this time to claim that “the area of CPP-61 at INTEC will not likely ever be a residential area”. Please explain if a decision to opt for an industrial use after 2095 has been documented, and where.</p>	<p>This bullet will be eliminated to be consistent with the residential use scenario after 2095 as identified in the WAG 3 ROD and WAG 3 Institutional Control Plan. Section 2.7.2 is revised to incorporate the information concerning the adequacy of the previous remediation. This text will be reworded to clarify this information.</p>
6	Section 2.7, fourth bullet	page 2-11	<p>The discussion here, and an examination of Table 2-2, indicate that soil sample analyses revealed levels of PCBs in sample #20 at 5.2 and 4.0 ppm at depths of 72 and 78 inches, respectively. Despite the low concentrations, these are still indicative of PCB levels above non-detect, and since sample #20 is in the main area of soil contamination, it appears that samples should have been collected to verify non-detect at depth. Please discuss.</p>	<p>No revision. Clean-up to pristine (non-detect) standards was not required. As identified, using the EPA standards for PCB remediation, the requirements were met. In addition, the soil in the immediate proximity of the pad was removed in order to facilitate pad removal.</p>

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7	Section 2.7.1, third bullet	page 2-12	There is neither any narrative nor figures that “clearly” indicate soil removal “three feet beyond” areas of visible contamination. If there is information that can demonstrate this, please include in the document.	This bullet has been reworded as follows: “The cleanup around the original pad included all soil that extended laterally at least 3 ft beyond an area with visible contamination in accordance with the cleanup guidelines (Appendix A).”
8	Section 2.7.1, last bullet	page 2-12	The exposure point concentration is important for estimating risk, not the total amount of PCB present in a given volume of soil.	This bullet has been deleted and the rationale associated with the risk calculation are provided in Section 2.7.2.
9	Section 2.7.2	page 2-12	Generally, the highest detected concentration is compared to the screening value in order to determine if additional characterization is necessary. Based on the sample data presented, additional characterization would be warranted based on either the residential PRG of 2.2E-01 mg/kg or the industrial PRG of 1.0E+00 mg/kg.	This section has been revised to provide additional rationale concerning the site’s ability to meets the acceptable risk guidelines for WAG 3. Information provided in EPA’s general comment is included in this revision.
10	Section 2.7.2, Tables 2-4 and 2-5	Page 2-13	It is not clear why risk-based concentrations based on individual exposure route sub-models are presented in these tables. Since all three exposure routes are assumed to occur in a residential or industrial scenario, the appropriate number for screening is the integrated number.	This table has revised to identify the risk levels for a residential scenario with the cancer risk levels of 10^{-6} and 10^{-4} risk levels. The industrial scenario has been eliminated.
11	Section 2.7.2, discussion and bullets	page 2-14	Inadequate justification is presented for rejecting a potential future residential scenario. In the event that an industrial scenario is warranted, it is appropriate to compare the 95% UCL of sample data to the PRG of 1.0E+00. If a decision is made that a risk level of 1E-4 is acceptable, the cancer PRG becomes 1.0E+02, and the noncancer PRG of 111.4+01 then becomes the limiting factor. It appears that the average level of site contamination is below 14 mg/kg, so the level of risk associated with this site would be acceptable. However, before this conclusion can be reached, a better case must be made for basing risk decisions on an industrial scenario.	Section 2.7.2 has been revised per response to comment #9. As requested, this revision will make a case for basing the risk decision on the available information, using the residential scenario. This will include using the available information such as sample data, drawings, construction interface documents, photos, and daily field logs to support that the risk decision of 10^{-4} WAG 3 ROD risk levels.

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SPECIFIC COMMENTS—CPP-81				
12	Section 3.3, last paragraph	page 3-1	It is not clear how the statement “No leaks were observed during the removal action, indicating that no previous release to the environment had occurred during the 1986 Run #15 or during the flushing operation.” was determined. The VOG line was a conduit for off-gas, and during Run #115 and the flushing operation the piping was essentially carrying relatively clear fluids so a leak would not be apparent (as compared to a petroleum leak). Also, the pipe was abandoned in place and there are no indications that, during or after flushing, the entire line and surrounding soil were exposed for scrutiny.	Rationale supporting the statement is identified in the response to question 2 of the <i>Track 1 Decision Documentation Package, Waste Area Group 3, Operable Unit 12, Site CPP-81, Abandoned CPP-637/CPP/620 VOG Line</i> , “Information collected during the 1993 removal action confirmed line integrity: 1) There was no loss of fluid during line flushing activities. 2) Inspection of the majority of the line utilizing a remote controlled camera revealed no visible breaches.”
13	Section 3.5.1, first bullet	page 3-5	The evidence presented so far is not incontrovertible that no leaks have occurred. This can only be ascertained by sampling and analysis of soils adjacent to and beneath the line.	No revision. See response to #12.
14	Section 3.5.1, first bullet	page 3-6	This discussion pertaining to the absence of mercury is appreciated. However, a simple analysis for mercury would have obviated the need for this discussion, as the “evidence” presented and discussed is inferred and not based on analyses.	Comment noted.

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15	Section 5.2	page 5-1	The third sentence again refers to analytical data that “clearly” demonstrates that residual levels of cadmium, chromium, and mercury are at levels below regulatory concerns. However, this is not “clear” for mercury, as the stated Hg concentration of 0.5 mg/kg is an inferred concentration based on the other contaminants, and was not demonstrated through analytical methods.	The paragraph has been reworded as follows: It is recommended that Site CPP-81 be a “No Further Action” site. All evidence indicates that no release has occurred at this site and that the potential threat of contamination in the pipe has been removed. The analytical data indicates that the residual levels of cadmium (0.17 mg/kg) and total chromium (0.112 mg/kg), in the pipe are below regulatory concerns (Cd 1.0 mg/L and Cr 5.0 mg/L). The residual level of mercury in the pipe was calculated to be 0.0004 mg/L (see Section 3.5.1 for decontamination calculation) and is below the regulatory concern for mercury of 0.2 mg/L. These residual concentrations are below the 1E-06 and HQ = 1 risk based concentrations for industrial and residential areas, see Tables 3-4 and 3-5.

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SPECIFIC COMMENTS—CPP-82

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16	Section 4.4	pages 4-7 to 4-9	<p>This section describes the incident at Location C, which included the breakage of line SWNH-110717 and the subsequent spillage of 500 gallons of wastewater. Despite the relatively well detailed account of the incident, it is not clear what the contents of the wastewater was, and also why composite sampling of the wastewater for RCRA hazardous metals for the month proceeding the rupture was thought to preclude the necessity for sampling the impacted soils during the incident. Confirmation sampling and analysis would have been more credible than the statement "This gives good reason to believe that no hazardous materials were released." (page 4-9, first paragraph). Please discuss.</p>	<p>The service waste system, which included line SWNH-110717 was part of the INTEC sewerage system used to manage nonhazardous, non-radioactive wastewater. This wastewater was discharged to the percolation ponds and was monitored immediately upstream of the breakage of line SWNH-110717 at CPP-734 with a composite of this wastestream calculated monthly.</p> <p>The composite for the previous month was assessed in the Track 1 document, presumably since that data was speculated to be the most representative of the wastewaters released during the spill. In addition to these results preceding the release, page 20 of the 1987 Environmental Monitoring Program Report for the Idaho National Engineering Laboratory Site (DOE/ID-12082(87)) states:</p> <p>"The largest effluent stream, that from the ICPP, is monitored by monthly composite samples analyzed for arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, chloride, fluoride, nitrate, sulfate, conductivity, total dissolved solids, and pH. All analytical results for 1987 were less than concentrations defined as hazardous waste in 40 CFR 261.24."</p> <p>Based on the composite sample results from the month preceding the rupture and the other data for this system, the decision was made to not sample the soils for metals. There is no evidence from previous sampling that would indicate that this wastestream would be hazardous for metals.</p>

